

## OIB - P-3 Orion 04/12/17 Science Report

**Aircraft:**

P-3 Orion ([See full schedule](#))

**Date:**

Wednesday, April 12, 2017

**Mission:**

OIB

**Mission Location:**

Northwest Coastal C

**Mission Summary:**

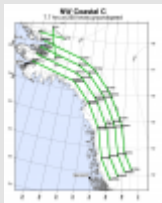
Mission: Northwest Coastal C (high priority, last flown 2014)

This mission was created from the 2010-2012 "Northwest Coastal" suite of missions by sampling individual coast-parallel lines from those flights to form a grid spaced at 30-35 km from the coast to near the 2000m contour line. This is one of three missions designed in this way, which together form a 10 km grid in the area. The others are Northwest Coastal A and B. We also add two additional bedrock-mapping lines in the Tracy/Heilprin catchment.

Clear weather along the northwest coast, but less so farther north of Thule, made for an easy decision today. As expected, we encountered some cross-winds and turbulence along the first/westernmost/lowermost track, which required us to slow down and ease off the autopilot. Because of time constraints and a delayed start, we had to cut short the Tracy and Heilprin transects at the end of this mission, but mopped up a flowline along Harald Moltke Bræ that had previously been cut from the Alexander-Peterman 01 mission. However, we still ended up overflying Helprin at the end of the mission. No other challenges were encountered as we surveyed the fluxgates of many outlet glaciers along the northwest coast. Our PolarTREC teacher for this deployment, Adeena Teres, joined us for her first flight with OIB. All instruments performed well, and we estimate 100% altimetry coverage.

**Images:**

### Map of today's mission



[Read more](#)

### Crevassed ice margin, northwest Greenland



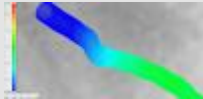
[Read more](#)

### Oblique view of the calving front of Heilprin Glacier, with stable and



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## ATM T6 surface elevation over a crevasse field illustrating the higher shot



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## Hara Madhav Talasila (CReSIS) viewing the snow he?s sounding while



[Read more](#)

### Submitted by:

Joseph MacGregor on 04/19/17

### Related Flight Report:

## P-3 Orion 04/12/17

### Flight Number:

Science Flight #21-Northwest Coastal C

### Payload Configuration:

OIB Arctic

### Nav Data Collected:

No

### Total Flight Time:

7.2 hours

### Submitted by:

Cate Easmunt on 04/14/17

### Flight Segments:

<b>From:</b>	BGTL	<b>To:</b>	BGTL
<b>Start:</b>	04/12/17 11:45 Z	<b>Finish:</b>	04/12/17 18:55 Z
<b>Flight Time:</b>	7.2 hours		
<b>Log Number:</b>	<a href="#">17P006</a>	<b>PI:</b>	Nathan Kurtz
<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
<b>Purpose of Flight:</b>	Science		

### Flight Hour Summary:

	<b>17P006</b>
<b>Flight Hours Approved in SOFRS</b>	333.6
<b>Total Used</b>	307.1
<b>Total Remaining</b>	26.5

17P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">02/24/17</a>	Airworthiness Test Flight	Check	1	1	332.6
<a href="#">02/26/17</a>	Project Test Flight #1	Check	4.9	5.9	327.7
<a href="#">02/27/17</a>	Project Test Flight #2	Check	3	8.9	324.7
<a href="#">03/07/17</a>	Transit Flight	Transit	8.2	17.1	316.5
<a href="#">03/09/17</a>	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5
<a href="#">03/10/17</a>	Science Flight #2 - Laxon Line	Science	8.5	33.6	300
<a href="#">03/11/17 - 03/12/17</a>	Science Flight #3 - Chukchi West Line	Science	8	41.6	292
<a href="#">03/12/17 - 03/13/17</a>	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9
<a href="#">03/14/17 - 03/15/17</a>	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9
<a href="#">03/20/17</a>	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8
<a href="#">03/22/17</a>	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9
<a href="#">03/23/17</a>	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252
<a href="#">03/24/17</a>	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2
<a href="#">03/27/17</a>	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8
<a href="#">03/28/17</a>	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2
<a href="#">03/29/17</a>	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6
<a href="#">03/30/17</a>	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7
<a href="#">03/31/17</a>	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2
<a href="#">04/03/17</a>	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
<a href="#">04/05/17</a>	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
<a href="#">04/06/17</a>	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
<a href="#">04/07/17</a>	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
<a href="#">04/10/17</a>	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
<a href="#">04/11/17</a>	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4
<a href="#">04/12/17</a>	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2
<a href="#">04/13/17</a>	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
<a href="#">04/14/17</a>	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
<a href="#">04/17/17</a>	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
<a href="#">04/19/17</a>	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
<a href="#">04/20/17</a>	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4

<a href="#">04/21/17</a>	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
<a href="#">04/22/17</a>	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
<a href="#">04/24/17</a>	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
<a href="#">04/26/17</a>	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
<a href="#">04/28/17</a>	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
<a href="#">04/29/17</a>	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
<a href="#">05/01/17</a>	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
<a href="#">05/02/17</a>	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
<a href="#">05/03/17</a>	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
<a href="#">05/05/17</a>	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
<a href="#">05/06/17</a>	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5
<a href="#">05/08/17</a>	Science Flight #37-Southeast Glaciers 01 (High Priority)	Science	8	307.1	26.5

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

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